

AMENDMENTS TO THE CLAIMS

Please replace the claims, including all prior versions, with the listing of claims below.

1. (Currently Amended) A method for processing data packets which ~~must be~~ are transmitted in a data network ~~(N)~~ which has a mobile function from a terminal ~~(TE)~~ to a data source ~~(CN)~~ via a home computer ~~(HA)~~ of the data network, wherein the terminal ~~(TE)~~ and the data source ~~(CN)~~ use a first network protocol, in which addresses of the first network protocol are assigned to the terminal ~~(TE)~~ and to the data source ~~(CN)~~, ~~said~~the addresses being represented in a first format, and the data network ~~(N)~~ uses a second network protocol, in which addresses of the second network protocol are assigned to the computers in the data network ~~(N)~~, ~~said~~the addresses being represented in a second format, wherein the addresses of the first network protocol can also be represented in the second format, in which comprising:
 - [[[-]]] assigning the terminal ~~(TE)~~ is assigned to a home network, wherein the terminal ~~(TE)~~ in the home network receives a home address ~~(HAd)~~ of the first network protocol, ~~said~~the home address being represented in the first format;
 - [[[-]]] processing, using the home computer, ~~(HA)~~ can process addresses of the first and of the second network protocol, wherein the home computer ~~(HA)~~ assigns the home address ~~(HAd)~~ which is represented in the second format to the terminal ~~(TE)~~ and the home address is ~~then~~ converted into the first format in a conversion step;
 - [[[-]]] receiving at the terminal ~~(TE)~~ ~~receives~~ a second address ~~(CoA)~~ of the second network protocol, ~~said~~the second address being represented in the second format, wherein the second address ~~(CoA)~~ is the address in an external network ~~(N2)~~ outside of the home network ~~(N1)~~ if the terminal ~~(TE)~~ is situated in the external network; and
 - [[[-]]] ~~in a first processing step adapting~~, a data packet, ~~containing~~ including the home address ~~(HAd)~~ represented in the first format as a source address and the address of the data source ~~(CN)~~ represented in the first format as a destination address, ~~is~~ ~~adapted in such a way that the adapted data packet contains~~ includes the second address ~~(CoA)~~ represented in the second format as a source address and the address

of the home computer-(HA) represented in the second format as a destination address as well as the address of the data source (CN) represented in the second format as a further address.

2. (Currently Amended) The method as claimed in Claim 1, in which the ~~first processing step and/or the conversion at least one of the adapting and conversion step is carried out~~ performed by a data transmission device (MT) which is connected to the terminal (TE).
3. (Currently Amended) The method as claimed in Claim 2, in which the data transmission device (MT) is connected to the terminal (TE) via a ~~PPP connection~~ (point-to-point protocol) connection.
4. (Currently Amended) The method as claimed in ~~one of the preceding claims~~claim 1, in which the data packet which was adapted ~~in the first processing step~~ is changed ~~in a second processing step in such a way that the changed data packet contains~~includes the home address (HA_d) represented in the first format as a source address and the address of the data source (CN) represented in the first format as a destination address, wherein the address of the data source (CN) represented in the first format is determined from the further address of the data packet which was adapted ~~in the first processing step~~.
5. (Currently Amended) The method as claimed in Claim 4, in which the data packet which was adapted ~~in the first processing step~~ is transmitted via the data network (N) to the home computer (HA) and ~~the second processing step is carried out~~the changing of the data packet is performed by the home computer-(HA), wherein an assignment of the second address of the terminal-(TE) to the home address is stored for the processing step in the home computer (HA), and the data packet which was changed ~~in the second processing step~~ is then transmitted to the data source-(CN).

6. (Currently Amended) The method as claimed in ~~one of the preceding claims~~claim 1, in which the first network protocol is IPv4 with or without Mobile-IPv4 support and the second network protocol is IPv6 with Mobile-IPv6 support, or in which the first network protocol is IPv6 with Mobile-IPv6 support and the second network protocol is IPv4 with or without Mobile-IPv4 support.
7. (Currently Amended) The method as claimed in Claim 6, in which the further address of the data packet which was adapted in the ~~first~~-processing step is stored in the routing header of the data packet.
8. (Currently Amended) A method for processing data packets which ~~must be~~are transmitted in a data network-(~~N~~) which has a mobile function from a data source-(~~CN~~) to a terminal-(~~TE~~) via a home computer-(~~HA~~) of the data network, wherein the terminal-(~~TE~~) and the data source-(~~CN~~) use a first network protocol, in which addresses of the first network protocol are assigned to the terminal-(~~TE~~) and the data source-(~~CN~~), ~~said~~the addresses being represented in a first format, and the data network-(~~N~~) uses a second network protocol, in which addresses of the second network protocol are assigned to the computers in the data network-(~~N~~), ~~said~~the addresses being represented in a second format, wherein the addresses of the first network protocol can also be represented in the second format, ~~in which~~comprising:
 - [[[-]]] assigning the terminal-(~~TE~~) is assigned to a home network, wherein the terminal in the home network receives a home address-(~~HAd~~) of the first network protocol, ~~said~~the home address being represented in the first format;
 - [[[-]]] processing, using the home computer-(~~HA~~) can process addresses of the first and of the second network protocol, wherein the home computer-(~~HA~~) assigns the home address-(~~HAd~~) which is represented in the second format to the terminal-(~~TE~~) and the home address is ~~then~~-converted into the first format in a conversion step;
 - [[[-]]] receiving at the terminal-(~~TE~~) receives a second address (CoA) of the second network protocol, ~~said~~the second address being represented in the second format,

wherein the second address (CoA) is the address in an external network (N2) outside of the home network (N1) if the terminal (TE) is situated in the external network; and
 [[-]] ~~in a first processing step adapting~~, a data packet, containing~~including~~ the address of the data source (CN) represented in the first format as a source address and the home address (HAd) represented in the first format as a destination address, ~~is adapted in such a way that the adapted data packet contains~~includes the address of the home computer (HA) represented in the second format as a source address and the second address (CoA) of the terminal represented in the second format as a destination address as well as the address of the data source (CN) represented in the second format as a further address.

9. (Currently Amended) The method as claimed in Claim 8, in which the data packet which ~~must be~~is adapted is transferred from the data source (CN) to the home computer (HA) and ~~the first processing adapting step is carried out~~performed by the home computer (HA), wherein an assignment of the second address (CoA) to the home address (HAd) of the terminal (TE) is stored for the ~~processing adapting~~ step in the home computer (HA).
10. (Currently Amended) The method as claimed in Claim 8 or 9, in which the data packet which was adapted ~~in the first processing step~~ is changed ~~in a second processing step~~ in such a way that the changed data packet ~~contains~~includes the address of the data source (CN) represented in the first format as a source address and the home address (HAd) represented in the first format as a destination address, wherein the address of the data source (CN) represented in the first format is determined from the further address of the data packet which was adapted ~~in the first processing step~~.
11. (Currently Amended) The method as claimed in Claim 10, in which the data packet which was adapted ~~in the first processing step~~ is transmitted via the data network (N) to a data transmission device (MT) which is connected to the terminal (TE) and the ~~second processing changing of the data packed step~~ is carried outperformed by the data transmission

device-(MT), wherein the data packet which was changed ~~in the second processing step~~ is then transmitted from the data transmission device to the terminal-(TE).

12. (Currently Amended) The method as claimed in Claim 11, in which the data transmission device-(MT) is connected to the terminal-(TE) via a ~~PPP connection (point-to-point protocol)~~ connection.
13. (Currently Amended) Method as claimed in ~~one of the preceding claims~~Claim 8, in which the first network protocol is IPv4 with or without Mobile-IPv4 support and the second network protocol is IPv6 with Mobile-IPv6 support, or in which the first network protocol is IPv6 with Mobile-Ipv6 support and the second network protocol is IPv4 with or without Mobile-IPv4 support.
14. (Currently Amended) The method as claimed in Claim 13, in which the further address of the data packet which was adapted ~~in the first processing step~~ is stored in the routing header of the data packet.
15. (Currently Amended) A data transmission device for processing data packets which are transmitted in a data network which has a mobile function from a terminal to a data source via a home computer of the data network, wherein the terminal and the data source use a first network protocol, in which addresses of the first network protocol are assigned to the terminal and to the data source, the addresses being represented in a first format, and the data network uses a second network protocol, in which addresses of the second network protocol are assigned to the computers in the data network, the addresses being represented in a second format, wherein the addresses of the first network protocol can also be represented in the second format, wherein
the terminal is assigned to a home network, wherein the terminal in the home network receives a home address of the first network protocol, the home address being represented in the first format;

using the home computer, addresses of the first and the second network protocol are processed, wherein the home computer assigns the home address which is represented in the second format to the terminal and the home address is converted into the first format in a conversion step;

at the terminal a second address of the second network protocol is received, the second address being represented in the second format, wherein the second address is the address in an external network outside of the home network if the terminal is situated in the external network; and

a data packet, including the home address represented in the first format as a source address and the address of the data source represented in the first format as a destination address, is adapted such that the adapted data packet includes the second address represented in the second format as a source address and the address of the home computer represented in the second format as a destination address as well as the address of the data source represented in the second format as a further address,

~~which is configured in such a way that the first processing step in accordance with Claim 1 and the first processing step in accordance with Claim 8 can be carried out using the data transmission device (MT).~~

16. (Currently Amended) The data transmission device as claimed in Claim 15, wherein the data transmission device (MT) is a mobile device, ~~in particular a mobile radio device.~~
17. (Currently Amended) A data network which has a mobile function for transmitting data between data sources (CN) and terminals (TE), wherein the data network is configured ~~in such a way that a method in accordance with one of the Claims 1 to 7 and a method in accordance with one of the Claims 8 to 14 can be carried out to perform the following:~~ assigning the terminal to a home network, wherein the terminal in the home network receives a home address of the first network protocol, the home address being represented in the first format;

processing , using the home computer, addresses of the first and the second network protocol,
wherein the home computer assigns the home address which is represented in the
second format to the terminal and the home address is converted into the first format
in a conversion step;
receiving at the terminal a second address of the second network protocol, the second address
being represented in the second format, wherein the second address is the address in
an external network outside of the home network if the terminal is situated in the
external network; and
adapting a data packet, including the home address represented in the first format as a source
address and the address of the data source represented in the first format as a
destination address, such that the adapted data packet includes the second address
represented in the second format as a source address and the address of the home
computer represented in the second format as a destination address as well as the
address of the data source represented in the second format as a further address.

18. (Original) The data network as claimed in Claim 17, in which a part of the data network is the Internet.
19. (Currently Amended) The data network as claimed in Claim 17-~~or 18~~, in which at least one of the home network (N1)~~and/or~~ the external network (N2)~~is~~ is a wireless network which is based on GPRS and/or Wireless LAN and/or Bluetooth and/or UMTS and/or CDMA2000 ~~in particular~~.